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THOMAS G. NEWMAN,
EDITOR.

Vol. XXVII. June 25, 1891. No. 26.

Editorial Buzzings.

The Glow and gleam of clover tops
O'erfringe the vendure's bounteous crops,
The shadows deepen in the wold,
And foxgloves ope' their cups of gold,
In June!

This Volume contains 848 pages and closes with the present issue. An Index is one of the most desirable things in a book. As intimated on page 165, we have concluded to give such every six months. The BEE JOURNAL can now be bound annually, or semi-annually, as may be preferred by each subscriber.

We Regret to learn that friend George E. Hilton, Fremont, Mich., has had a severe attack of bilious or catarrhal fever. He is now convalescing. He says that competent help has not allowed his business to suffer during his enforced absence.

A Strawberry Grower in Nebraska, after a succession of failures of crops, bought a colony of bees for the sole purpose of fertilizing his strawberries. With the coming of the bees the strawberry vines afterward produced in abundance.

Insects and Insecticides is the title of a practical manual concerning noxious insects and the methods of preventing their injuries, by Clarence M. Weed, D.Sc., Professor of Entomology and Zoology, New Hampshire College of Agriculture and Mechanic Arts; recently Entomologist Ohio Agricultural Experiment Station, etc.

This book has been prepared with the idea of furnishing the farmer, the fruit-grower, the florist, and the housekeeper with a short account of the injurious insects with which they have to contend, and the latest and best remedies for them. It is the only book published in America which covers the whole field. It is profusely illustrated, and handsomely bound in cloth, with embossed cover.

In the introduction there is a short discussion of the Transformations of Insects; Natural Enemies of Injurious Insects; the Principal Insecticides; Methods of applying Insecticides, with especial reference to Spraying; and Directions for Collecting and Preserving Insects. It will be sent to any address on receipt of \$1.25, by the author, C. M. Weed, Hanover, N. H.

At the Late Meeting of the Minnesota State Horticultural Society a vote was taken to ascertain what portion of the members were interested in bee-culture, and the vote showed that a large majority were so interested; a cheerful indication.

In Colorado, this year, no other agricultural pursuit will show a greater increase than honey production.

Advanced Bee-Culture is the title of a neat book of 96 pages (price, 50 cents), by W. Z. Hutchinson, Flint, Mich. It begins with the care of bees in Winter, and goes over the whole ground until the honey is off the hives, clearly and concisely touching upon all important points.

The book is worth a better shape and binding. With the pages a little over one-half the size, a more extensive index, and a nice cloth binding, it would have readily sold at a dollar.

The topics presented are as follows: Care of Bees in Winter—Securing Workers for the Harvest—Hives and their Characteristics—Honey-Boards—Sections, and their Adjustment on the Hives—Varieties of Bees—Introducing Queens—Planting for Honey—Specialty Versus Mixed Bee-Keeping—Arrangement of Hives and Buildings—Separators—Shade for Bees—Increase, Its Management and Control—Contraction of the Brood-Nest—Hiving Bees—Comb-Foundation, Its Use and Abuse—Foul-Brood—Queen-Rearing—How to Produce Good Extracted-Honey—"Feeding Back"—From the Hive to the Honey Market—Marketing of Honey—Migratory Bee-Keeping—Out-Apiaries—Apiarian Exhibits at Fairs—Relation of Food to the Wintering of Bees—Out-Door Wintering—Ventilation of Bee-Cellars—Relation of Moisture to the Wintering of Bees—Comforts and Conveniences in the Apiary—Mistakes in Bee-Keeping.

The author has given the "cream" of the discussion of these topics when they were presented in the *Review* during the past three years.

The book contains a fresh, clear and concise yet comprehensive statement of the most important apicultural topics of the day. Every bee-keeper should have a copy. It can be obtained at this office.

Bar Hives have small bars across the top to which the combs are attached, instead of being in frames.

That Wiley Lie is again before the people, but this time it is presented in the light of a "gross libel," and a \$500 verdict is recorded against a paper which had given it to the public. The Michigan *Farmer* of last week contained this item:

The Wiley lie has been nailed at last, and with a \$500 verdict. The *Detroit Journal*, some time last year, revamped the old chestnut, and indicated Mr. E. B. Weed, of Detroit, as the "ingenious individual" who was deceiving the public, and even the "bees themselves." No name was mentioned, but the article was worded so that there could be no doubt as to who was meant.

The *Journal* endeavored to show that no one in particular was pointed out; but the judge and jury of the Wayne Circuit Court thought otherwise, and the *Journal* was taxed the above amount for "gross libel."

This was denounced as a "false, slanderous and defamatory statement" on page 416, and the *Detroit Journal* was shown by Harmon Smith to have "grossly adulterated the truth," in its comments upon an invention by E. B. Weed, Grand River Avenue, Detroit, Mich.

We are glad that the *Detroit Journal* has been made to suffer for its reckless statements, and we should like to see a similar course pursued with other papers which persistently misrepresent our pursuit, and lie about its devotees.

You Need an Apiary Register, and should keep it posted up, so as to be able to know all about any colony of bees in your yard at a moment's notice. It devotes two pages to every colony. You can get one large enough for 50 colonies for a dollar, bound in full leather and postage paid. Send for one before you forget it, and put it to a good use. Let it contain all that you will want to know about your bees—including a cash account. We will send you one large enough for 100 colonies for \$1.25; or for 200 colonies for \$1.50. *Order one now.*

Cross Bees are very undesirable at all times and in all places. Dr. C. C. Miller, in the *Stockman*, very mirthfully writes thus:

It seems pretty well settled that Italian bees are best.

The proof is that nearly if not quite all extensive honey-producers use them.

I have done with hybrids. They are too cross, and they make me cross.

Cyprian and Holy-Land bees promised great things, but very little is said about them now-a-days. Their general reputation is very far behind that of the Italians.

Carniolan bees have the boom on just now. But the boom is so much in the hands of those who have queens to sell, that it is hard to tell much about the real merits of the bees.

The latest boom is for the Punic bees. But that they are any better than the Italians, it will be difficult to make apiarists in general believe. The descriptions heretofore published have shown much exaggeration.

Spraying Trees.—This subject is presented by Prof. Gerald McCarthy, in Bulletin No. 76 of the North Carolina Experiment Station. He speaks of using paris green, london purple and bordeaux mixture, and adds:

To spray one acre of grape vines once, takes about 66 gallons of this mixture, and usually six treatments are required for each season. This gives a total of about 400 gallons per acre, containing about 180 pounds of copper sulphate. All of this copper eventually finds its way into the soil.

Copper salts are a deadly poison to all absorptive plant tissues, and therefore to the roots of cultivated plants. Is there not danger then that the accumulation of this substance in the soil of our gardens and orchards, if persisted in for a series of years, may eventually affect the fertility of the soil? *There is very great danger!*

And let it be understood that when once the soil is sterilized by this poison, not all the guano on the coast of Peru can ever restore an acre to its former state, or make it fit to bear one blade of grass!

The possible danger of using such poisons has already occasioned consider-

able alarm in Europe. It came up for discussion at the last meeting of the German association of naturalists. It was shown that copper sulphate in the soil soon becomes copper oxide, which is practically insoluble, and remains in the upper stratum of the soil.

The sulphuric acid combines with the potash and lime in the soil, and with them forms more or less soluble compounds, which are washed into the drains, or so far below the reach of most plants as to be practically lost.

Its deleterious action is therefore twofold: It destroys the young roots of plants, and causes the useful potash and lime in the soil to leach away.

When lime is given to the copper before it is sprayed, the baneful effect of the latter upon the potash and lime in the soil is largely prevented, but its evil effect upon the growing plant-roots still remains.

The horticulturist must, therefore, bear in mind that the fungicides he uses are by no means friends to be depended on without limit. They are *necessary evils, to be used with caution* and the greatest economy.

The utmost care is necessary when using these poisons. There is danger to the vegetation, danger to the soil, and danger to the bees, if it is done before the blossoms fall. The caution of Prof. McCarthy is therefore, timely and appropriate.

Dextrine may be used for gumming honey labels, and for pasting labels on wood, tin, etc. It will stick and dry instantly. It is the substance used on postage-stamps, and by express companies for putting on their labels, etc. To use, dissolve it in a little hot water, and apply with a brush, brushing the gum over the label, as well as under it.

Beginners must not expect us to give space to all their questions. Such would be very uninteresting to older apiarists. Buy a Manual and study the nature and habits of the bees, and the simple methods of management. Then expect in the BEE JOURNAL only such as will be of interest to the majority.

World's Fair Exhibit.—The following item was published in the Chicago *Times* of last week. It was gleaned from our correspondence with W. I. Buchanan, Esq., Chief of the Department of Agriculture, about the management of the bee and honey exhibit:

Thomas G. Newman, editor of the BEE JOURNAL, of Chicago, writes to Chief Buchanan that the International Bee-Keepers' Association, which is the parent society for the United States and Canada, had its meeting last October and selected Dr. A. B. Mason, of Ohio, and R. McKnight, of Ontario, as the managers of the Apian Exhibit at the Exposition, subject to Mr. Buchanan's appointment. Mr. Newman says arrangements are forming to make a grand exhibit of bees and honey at the Fair.

Mr. Buchanan will do all he can to provide for a magnificent apian exhibition. We have had a visit from him, and he is thoroughly alive to the subject.

Another Victory.—The following letter will fully show that another victory has been obtained by putting the decision of the Supreme Court of Arkansas to good use:

EASTON, Pa., June 10, 1891.

GENERAL MANAGER OF THE UNION:—You can score another victory for the bee-keepers. For a number of years past, a certain confectioner of our city has kept up a quarrel with a couple of his neighbors, who kept a few colonies of bees. His candy factory was an old, rickety building, with panes of glass broken out of the windows, and in Summer he had the doors and windows open. The result was, that in the late Summer, when nectar was scarce, the bees would get into the building, and annoy his assistants, who killed a great many of the bees. One of the bee-keepers offered to make screens for the doors and windows, at his own expense, but the confectioner refused to accept the proposition, and kept up the quarrel until about two months ago, when his foreman, who is a member of the City Council, introduced an ordinance declaring certain things and acts nuisances. This ordinance contained a section, declaring bee-keeping within the city limits a nuisance, and imposing a penalty of \$20 for a violation of its provisions.

This ordinance was referred to the law department. I at once called on the chairman of the committee, and asked to be heard when they took it into consideration. This request was granted, and I appeared before them. The committee consisted of two lawyers and three laymen, two of whom were, or had been, bee-keepers themselves. In addressing them, I, in substance, used the argument of Judge Williams in the Arkadelphia case, which you so kindly sent me, and wound up by showing them the absurdity of such an ordinance.

Our city at no place measures more than two miles across. I keep about 40 colonies in the city, within 1,000 yards of the line. I could easily remove them, and thus place myself beyond the reach of their ordinance. In addition to this, there are perhaps 150 colonies within one mile outside the line, all around the city. I explained to them that these bees would fly from one to three miles when nectar was scarce, and that no ordinance which they could enact would keep them out of the city at such times.

The lawyers saw the legal points raised at once, and the two bee-men actually arose and aided me in my argument as to the absurdity, and the result was an unanimous vote to strike out the section relative to bees, and it was so reported and passed at the meeting of the Council on Friday last.

C. G. BEITEL.

Queen-Bees can now be admitted free of duty. The Manager of the Bee-Keepers' Union has a long letter from the Treasury Department, in reply to his letter of May 11, with the ruling of O. L. Spaulding, Esq., Assistant Secretary, that "Queen bees of recognized breeds may properly be admitted to free entry under the provisions of paragraph 482, without requiring the certificate of record and pedigree specified therein." *This is all we asked for.* The full correspondence may be given next week, so as to place it upon record, for the convenient reference of all interested.

The Official Report of the 22nd Annual Convention of the New York State Bee-Keepers' Association is on our desk. The convention was held last January, and a condensed report published on pages 222, 284 and 326 of the AMERICAN BEE JOURNAL.

Bee-Keepers' Associations.

By request of W. I. Buchanan, Esq., Chief of the Department of Agriculture of the World's Columbian Exposition, we have prepared the following list of apicultural societies. There are 111, but these are not all, and there may be some errors. We, therefore, ask for immediate corrections from any persons who may discover them, so that we may have correct and full representation before the Directors of the World's Fair. Those who have had no experience in such work, will have but little idea of the labor involved in getting up this list.

North American Bee-Keepers' Association, P. H. Elwood, President. C. P. Dadant, Secretary, Hamilton, Ills.

- Agency Bee-Keepers' Association, T. S. Smith, Secretary, Agency, Mo.
- Alabama State Bee-Keepers' Association, J. M. Jenkins, Secretary, Wetumpka, Ala.
- Bee and Poultry-Keepers' Association, Ora Knowlton, Sec'y, New Brunswick, Ind.
- Boone and Hendricks Counties Bee-Keepers' Association, John Ridgway, Secretary, Brownsburg, Ind.
- Brant Bee-Keepers' Association, D. Anguish, Secretary, Brantford, Ont.
- Brookfield Bee-Keepers' Association, Jos. G. Banning, Secretary, Brookfield, Mo.
- Bruce Bee-Keepers' Association, A. Tolton, Secretary, —, Ontario.
- Capital Bee-Keepers' Association, C. E. Yocum, Secretary, Sherman, Ills.
- Carolina Bee-Keepers' Association, N. P. Lyles, Secretary, Derita, N. C.
- Cedar Valley Bee-Keepers' Association, J. J. Owens, Secretary, Waterloo, Iowa.
- Central Iowa Bee-Keepers' Association, A. J. Adkinson, Secretary, Winterset, Iowa.
- Central Michigan Bee-Keepers' Association, W. A. Barnes, Secretary, Lansing, Mich.
- Champlain Valley Bee-Keepers' Association, R. H. Holmes, Secretary, Shoreham, Vt.
- Colorado State Bee-Keepers' Association, E. Milleson, President, box 2522, Denver, Colo.
- Cortland Union Bee-Keepers' Association, M. H. Fairbanks, Secretary, Homer, N. Y.
- Des Moines County Bee-Keepers' Association, John Nau, Secretary, Middletown, Iowa.
- Darke County Union Bee-Keepers' Association, J. A. Roe, Secretary, Union City, Ind.
- Eastern Indiana Bee-Keepers' Association, M. G. Reynolds, Secretary, Williamsburg, Ind.
- Eastern Iowa Bee-Keepers' Association, Frank Coverdale, Secretary, Welton, Iowa.
- Eastern Iowa and Western Illinois Bee-Keepers' Association, H. S. Dibbern, Secretary, Milan, Ills.
- Eastern New York Bee-Keepers' Association, W. S. Ward, Secretary, Fuller's Station, N. Y.

- Erie County Bee-Keepers' Association, R. Meatyard, Secretary, Protection, N. Y.
- Eureka Springs Bee-Keepers' Association, Dr. S. S. Purcell, Secretary, Eureka Springs, Ark.
- Fremont Progressive Bee-Keepers' Association, G. E. Hilton, Sec'y, Fremont, Mich.
- Haldimand Bee-Keepers' Association, E. C. Campbell, Secretary, Cayuga, Ont.
- Hamilton County Bee-Keepers' Association, Geo. C. Thompson, Secretary, Southport, Ind.
- Hancock County Bee-Keepers' Association, S. H. Bolton, Secretary, Stanley, O.
- Hardin County Bee-Keepers' Association, J. W. Buchanan, Secretary, Eldorado, Iowa.
- Hill County Bee-Keepers' Association, H. A. Goodrich, Secretary, Massey, Tex.
- Huron, Tuscola, and Sanilac Counties Bee-Keepers' Association, John G. Kunding, Secretary, Kilmanagh, Mich.
- Illinois State Bee-Keepers' Association, Jas. A. Stone, Secretary, Bradfordton, Ills.
- Indiana State Bee-Keepers' Association, G. C. Thompson, Secretary, Southport, Ind.
- Iowa State Bee-Keepers' Association, J. W. More, Secretary, Des Moines, Iowa.
- Ionia Bee-Keepers' Association, Harmon Smith, Secretary, Ionia, Mich.
- Johnson County Bee-Keepers' Association, L. R. Jackson, Sec'y, Urmeyville, Ind.
- Kansas State Bee-Keepers' Association, J. B. Kline, Secretary, Topeka, Kans.
- Kentucky State Bee-Keepers' Association, T. Connley, Secretary, Napoleon, Ky.
- Keystone Bee-Keepers' Association, A. A. Davis, Secretary, Clark's Green, Pa.
- Linwood Bee-Keepers' Association, B. J. Thompson, Secretary, Waverly, Wis.
- Mahoning Valley Bee-Keepers' Association, E. W. Turner, Sec'y, Newton Falls, O.
- Manitoba Bee-Keepers' Association, J. Hammond, Secretary, Winnipeg, Manitoba.
- Maine Bee-Keepers' Association, J. F. Fuller, Secretary, Oxford, Me.
- Maine State Bee-Keepers' Association, Wm. Hoyt, Secretary, Ripley, Me.
- Marion County Bee-Keepers' Association, Dr. H. J. Scoles, President, Knoxville, Iowa.
- Marshall County Bee-Keepers' Association, J. W. Sanders, Sec'y, LeGrand, Iowa.
- Maryland, Virginia and West Virginia Bee-Keepers' Association, D. A. Pike, President, Smithsburg, Md.
- Michigan State Bee-Keepers' Association, G. E. Hilton, Secretary, Fremont, Mich.
- Minnesota State Bee-Keepers' Association, C. Theilmann, Secretary, Theilmantown, Minn.
- Missouri State Bee-Keepers' Association, J. W. Rouse, Secretary, Mexico, Mo.
- Nashau Bee-Keepers' Association, H. L. Rouse, Secretary, Ionia, Iowa.
- Northeastern Kansas Bee-Keepers' Association, I. C. Clark, Sec'y, Hiawatha, Kans.
- Nebraska State Bee-Keepers' Association, J. N. Heater, Secretary, Columbus, Nebr.
- Nemaha County Bee-Keepers' Association, R. Corgell, Secretary, Brock, Nebr.
- New York State Bee-Keepers' Association, Geo. H. Knickerbocker, Secretary, Pine Plains, N. Y.
- Northeastern Bee-Keepers' Association, Geo. W. House, Secretary, Syracuse, N. Y.

New Jersey and Eastern Bee-Keepers' Association, W. B. Treadwell, Secretary, 16 Thomas St., New York City.

North Carolina State Bee-Keepers' Association, A. L. Beach, Sec'y, Pineville, N. C.
Northeastern Michigan Bee-Keepers' Association, W. Z. Hutchinson, Secretary, Flint, Mich.

Northeastern Ohio, Northwestern Pennsylvania and Western New York Bee-Keepers' Association, Geo. Spittler, Secretary, Mosiertown, Pa.

Northern Ohio Bee-Keepers' Association, H. R. Boardman, Secretary, East Townsend, Ohio.

Northeastern Kentucky Bee-Keepers' Association, Alex. W. Stith, Secretary, Portland, Ky.

Northern Illinois Bee-Keepers' Association, Chas. Winn, Secretary, P. O. Box 1854, Rockford, Ills.

Northwestern Bee-Keepers' Society, at Chicago, W. Z. Hutchinson, Secretary, Flint, Mich.

Ohio State Bee-Keepers' Association, S. R. Morris, Secretary, Bloomingsburgh, O.
Ontario Bee-Keepers' Association, W. Couse, Secretary, Streetsville, Ont.

Pan-Handle Bee-Keepers' Association, W. L. Kinsey, Secretary, Blaine, O.

Progressive Bee-Keepers' Association, Miss Dema Bennett, Secretary, Bedford, O.

Rock River Bee-Keepers' Association, J. M. Burtch, Secretary, Morrison, Ills.

Northern Indiana and Southern Michigan Bee-Keepers' Association, F. L. Putt, Secretary, Goshen, Ind.

Northern Michigan Bee-Keepers' Association, F. A. Palmer, Secretary, McBride, Mich.

Northwestern Indiana Bee-Keepers' Association, A. Fahnestock, Secretary, La Porte, Ind.

Oneida County Bee-Keepers' Association, O. J. Evans, Secretary, Camroden, N. Y.

Patsalaga Bee-Keepers' Society, M. G. Rushton, Secretary, Raif Branch, Ala.

Portage County Bee-Keepers' Association, L. G. Reed, Secretary, Kent, O.

Progressive Bee-Keepers' Association, J. Norton, Macomb, Ills.

Province of Quebec Bee-Keepers' Association, S. B. La Montague, Secretary, Montreal, Can.

Rhode Island Bee-Keepers' Society, G. A. Stockwell, Secretary, Providence, R. I.

Saint Joseph Inter State Bee Keepers' Association, E. T. Abbott, Secretary, St. Joseph, Mo.

Seneca County Bee-Keepers' Association, I. Wilson, Secretary, Ovid, N. Y.

Southwestern Iowa Bee-Keepers' Association, E. Kretschmer, Red Oak, Iowa.

Southwestern Wisconsin Bee-Keepers' Association, Benj. Rice, Secretary, Boscobel, Wis.

Southern California Bee-Keepers' Association, C. N. Wilson, President, Los Angeles, Calif.

Southeastern Michigan Bee-Keepers' Association, A. M. Gander, Secretary, Adrian, Mich.

Southern Illinois Bee-Keepers' Association, F. H. Kennedy, Secretary, Du Quoin, Ills.

Southern Wisconsin Bee-Keepers' Association, J. T. Pomeroy, Secretary, Edgerton, Wis.

Southern Indiana Bee-Keepers' Association, C. Firth, Secretary, Madison, Ind.

Shenandoah Valley Bee-Keepers' Association, Joseph E. Shaver, Secretary, Friedens, Va.

Sheboygan County Bee-Keepers' Association, Mattie B. Thomas, Secretary, Sheboygan Falls, Wis.

Stark County Bee-Keepers' Association, Mark Thomson, Secretary, Canton, O.

Susquehanna County (Pa.) Bee-Keepers' Association, H. M. Seeley, Secretary, Harford, Pa.

Texas State Bee-Keepers' Association, A. H. Jones, Secretary, Golden, Tex.

Tri-State Bee-Keepers' Society, Dr. A. B. Mason, Secretary, Auburndale, O.

Tuscarawas County Bee-Keepers' Association, Geo. F. Williams, Secretary, New Philadelphia, O.

Turkey Hill, Bee-Keepers' Association, A. Fehr, Secretary, Belleville, Ills.

Union Bee-Keepers' Association, Daniel Shank, Secretary, Clayton, Ills.

Union Bee-Keepers' Association, Mrs. J. E. Pryor, President, Dexter, Iowa.

Union Bee-Keepers' Society, G. W. Demaree, Secretary, Christiansburg, Ky.

Utah Bee-Keepers' Association, J. C. Swaner, Secretary, Salt Lake City, Utah.

Ventura County Bee-Keepers' Association, S. C. Gridley, Secretary, Nordhoff, Cal.

Vermont Bee-Keepers' Association, Miss Marcia Douglas, Secretary, Shoreham, Vt.

Wabash County Bee-Keepers' Association, Henry Cripe, Secretary, North Manchester, Ind.

Welland County Bee-Keepers' Association, J. F. Dunn, Secretary, Ridgeway, Ont.

Western Connecticut Bee-Keepers' Association, Mrs. W. E. Riley, Secretary, Waterbury, Conn.

Western Maine Bee-Keepers' Association, F. D. Wellcome, Secretary, Poland, Me.

Western Bee-Keepers' Association, P. Otto, Secretary, cor. Park and 25th Sts., Kansas City, Mo.

Whiteside County (Ills.) Bee-Keepers' Association, J. M. Burtch, Secretary, Morrison, Ills.

Wisconsin State Bee-Keepers' Association, Dr. J. W. Vance, Secretary, Madison, Wis.

Wisconsin Lake Shore Center Bee-Keepers' Association, F. Zastrow, Secretary, Kiel, Wis.

Williamette Valley Bee-Keepers' Association, E. J. Hadley, Secretary, La Fayette, Oregon.

York and Cumberland Bee-Keepers' Association, C. W. Costellow, Secretary, Waterboro, Me.

The list is much longer than we expected to find it, when the work of listing was commenced. It shows life and abiding interest.

Queries and Replies.

Bees Carrying Out Brood.

QUERY 772.—What is the cause of bees carrying out the brood, when they are almost fully developed?—Minn.

Scarcity of honey will do it.—H. D. CUTTING.

Usually, it is caused by starvation.—DADANT & SON.

Sometimes the cause of such is worms.—EUGENE SECOR.

Cold weather chills the brood so as to kill it.—A. J. COOK.

Generally, the larvæ of the wax moth.—G. M. DOOLITTLE.

Generally, scarcity of stores; sometimes worms.—C. C. MILLER.

I cannot state the cause, not knowing the surrounding conditions.—JOSEPH M. HAMBAUGH.

The bees may be starving, or the brood chilled to death, or injured by moth.—R. L. TAYLOR.

Usually want of stores; they will do the same also, when the brood is killed by cold.—J. E. POND.

A common cause is threatened starvation. Another frequent cause is the work of bee-moths.—M. MAHIN.

Moth worms usually. Sometimes from different causes, brood dies in the stage you mention.—JAMES HEDDON.

It may be scarcity of stores, or the brood dying from cold on account of insufficient bees to protect it.—C. H. DIBBERN.

Have had no experience of this kind, except in the case of drone-brood, so could not say. Bees carry out drone-brood in times of failure of nectar secretion in the flowers.—G. L. TINKER.

It is most frequently owing to a dearth of forage, but sometimes worms get under the brood, and the bees carry it out to get at the webs of the worms.—J. P. H. BROWN.

When I have seen brood thus carried out, and investigated, I found that the bees cut their comb to destroy a bee-moth grub. They also carry out drone-brood when there is a dearth of honey.—MRS. L. HARRISON.

Sometimes brood becomes chilled, but not killed outright, and when the young bees begin to hatch out, many of them are weak, deformed and worthless, in which case the workers ruthlessly cast them out. And sometimes bees at the point of starvation, will cast out their brood. I guess the "cause" is something like what I have mentioned above.—G. W. DEMAREE.

Either the lack of honey or the presence of moth-worms may be the cause.—THE EDITOR.

Queen-Excluders.—Mr. Thos. Foreacre, Marshallton, Del., asks:

I saw in the BEE JOURNAL that Ira Reeves had taken off 2 supers full of honey. I can beat that. I put on this Spring one simplicity hive having 64 sections. I opened it on Saturday, June 6, and found the sections all full except a few in the lower tier, in which the queen had laid some eggs. Should honey be removed from the hive as soon as it is capped, or should it be left in the hive until it is cooler? What is the cause of the queen laying in the surplus sections, when she has ten hanging frames full of good comb? A wood honey-board is on the hive in which the queen is laying in the surplus sections, but I prefer zinc honey-boards. We have had moisture enough here; the white clover looks well, and there is a plenty of it.

Dr. G. L. Tinker replies to the above as follows:

It is always best to remove the surplus comb-honey as soon as it is sealed. If left on the hives for a month, or more, the combs will be solid with propolis, or be so travel stained as to injure its sale.

The reason the queen lays in the surplus sections, on the 10-frame Langstroth hive, where excluder zinc is not used, is because it is not large enough for the average queen, where proper management is given, or the season proves to be unusually favorable for brood-rearing, as it has been this season so far. For the best results in producing comb-honey, I am fully convinced that the two-story hive, having a capacity equivalent to 13 Langstroth frames, is superior to every other, even in a poor season; while in a good season the results are surprising with these large hives.

Get a good hive and learn how to use the wood-zinc excluder, and you will soon get on the road to success.

Topics of Interest.

Method of Handling Queen-Cells.

C. A. BUNCH.

As the swarming season is now at hand, let us consider the proper way of handling our queen-cells for increase; also, how to have them built. We find instructions in the bee-books as to how the cells should be built, but they do not lay stress enough on the careful handling of them.

Suppose we have natural swarming, and about eight days after the colony casts a prime swarm, we proceed to cut out and remove all queen-cells but one. My experience has been that only a part of these cells will produce first-class queens, for the reason that the eggs in a part of the cells may not hatch until several days later, and the idea of having the young queens loosened and shaken down from the royal jelly, which is very easily done, and then be good, prolific queens, is very unreasonable, to me, at least.

I prefer to take each comb that has but one cell, and carefully carry it, bees and all, to the queenless hive, to have her hatch and be fertilized, and the combs that have more than one cell on are put in a hive, examined three times a day—morning, noon and night—and as soon as a queen is found hatched out she is picked off the comb and run in at the entrance of a queenless colony or nucleus. A full colony should be queenless three days; a two-frame nucleus about twelve hours.

I have used queen-cell protectors slipped over the cells and fastened at the top with one or two common brass pins, but this is not always a success, as the bees sometimes cut a bee-space around the cell-protector, which, of course, destroys the queen-cell.

Now, this may look like a lot of fooling, but such queens are valuable property if in a hive and given a fair chance. I have reared queens according to the plan laid down in the "Handy Book," and had nearly all the queens hatch in an hour, and several to hatch before I had time to cut the ripe cells off the comb. Of course, these cells were built in a queenless colony.

Many thanks to Dr. C. C. Miller for his way of having queen-cells built below a queen-excluder; it is an entire success with me. I go to a good, strong

colony that has a breeding queen, take the comb, bees and queen out of the hive—that is one comb—remove all combs not occupied with brood, and proceed to fill the hive with other combs, bees and brood from other hives of good stock, being careful not to bring the queen along.

Now, place a queen-excluder above these combs, another hive on the queen-excluding honey-board, and put the queen and comb in the upper story, filling out with other brood-combs (empty combs will do). In about eleven days I lift off the upper story and honey-board, and carefully remove the combs that have queen-cells on, place in comb bucket and carry to queenless hives where wanted.

I find such colonies work well, and we can use this hive again for queen-rearing, as many bees will return from combs taken away, but I would gather up combs, bees and brood as before, and place them under the queen-excluder. By this plan the bees are not strictly queenless, and have to pass down through by the cells when going from the queen to the field. I like the last named way of having cells built, as the bees are not entirely queenless, and we are likely to have a fine cell built on each comb just as I like to have them.

As I stated in a report last Fall, my crop of honey was less than 4 pounds per colony. Spring count, so I was obliged to feed the bees last Fall and this Spring, altogether 280 pounds of granulated sugar. A few colonies—about 4—starved, and about the same number died with diarrhea, as the combs were well loaded with pollen, and about 20 Spring dwindled. Altogether 28 out of 50 colonies perished.

Nye, Ind.

Apicultural Notes from Nebraska.

J. M. YOUNG.

Every bee-keeper should have a lawn mower to keep down the grass and weeds around the hives.

"Aint they pretty," remarked a friend the other day, while viewing my new dovetailed hives. I have them painted red to make a contrast among my white ones.

White clover is in full bloom now, and furnishes a nice lot of honey for brood-rearing, and just when we need it to rear lots of bees for the basswood honey harvest. I expect the basswood to

bloom this year before July 1; usually it blooms, in this locality, from March 1 to 15.

It hardly pays to fuss with little weak colonies at this time of the year, and usually I dump a swarm right on these little colonies, as I like a hive full of bees for business. A swarm put in in this manner will go right to work in boxes, and is more profitable than anywhere else, to the bee-keeper.

A few swarms issued during May, just as we expected, and quite a number since, but to-day the weather is quite cool and cloudy, and has been for a week, which has checked swarming considerably. One swarm that came off a week ago has about half filled their hive already with new comb, just from strips of foundation an inch wide in the frames.

In reply to friend Stilson, in the May number of the *Nebraska Bee-Keeper*, and "Buckskin Charley" in the June number, I will say that I do not wish to enter into a controversy with these gentlemen in regard to there being no basswood in Nebraska, but will say this much at least; that I seldom say, or allow anything to appear in print over my signature, that I cannot back up or verify.

Again, I am not going to attempt to prove this matter in this article from the fact that it is not necessary, but will simply state further, that I have been a bee-keeper for 20 years or more, and have made a business of producing honey, too. During this time I have obtained nearly all of my surplus honey from the basswood. A few years ago, I took from one colony 350 pounds of honey, and a large portion of it was from this same basswood.

In speaking about there being basswood in Nebraska, I had reference to the eastern part of the State, and not to the western sand-hills, where there are miles and miles of broad prairie where even so much as a riding switch cannot be cut.

I came to this State in 1855; have lived here ever since, and have been over the State considerable, and wherever I found forest a little basswood was to be found; even on the Niobrara River—not Niabrara—some can be seen growing. It will, perhaps, surprise these gentlemen more for me to state that there is plenty of saw-log basswood timber in this locality, and it is a fact that plenty of it can be found all along the Missouri River for several miles above and below here.

Plattsmouth, Nebr., June 8, 1891.

Taking Sections Out of a T Super.

DR. C. C. MILLER.

I will now describe the plan I have followed for some time, to take single sections out of a T super, without taking the super off the hive. I thought of doing so sometime ago, but had about given it up, with the thought that, if followers and wedges in T supers came into general use, there would be no special plan needed. Still, it may be useful to a good many.

You may remember, friend Root, a tool that I took to the convention at Madison, a year ago, and then forgot to show. Well, I send it herewith. I have pulled sections by the thousand with the identical one I send you. I will tell you how to make one. Have your tinner cut a piece of No. 11 wire about a foot long. Straighten it. Bend the wire at right angles about 1 inch from one end. Make another right-angled bend, $\frac{1}{4}$ of an inch or less, from the same end. (I am not sure which of these bends should be made first). The end of your wire is now shaped like the bottom part of a capital L (see illustration). But the end is blunt, and must be filed down to a cutting edge like a chisel. Your chisel-edge will, of course, be the size of the thickness of your wire—a little more than $\frac{1}{8}$ of an inch.

Now, for a handle. Make a curved bend at the other end of the wire, about 3 inches from the end, so that it shall form a semi-circle at the end, an inch in diameter. This leaves about 2 inches of the end straight, and I do not know whether it is better to have this 2 inches parallel with the main wire, or to have the end come within $\frac{1}{8}$ of the main wire. The bends at both ends are all made in the same plane, so that the hook will lie flat upon a table, without any part projecting upward.

Another tool is needed. Take a common steel table-knife, and make it square across the end by cutting off the rounding part. Make this square end about as sharp as the cutting edge of a table-knife usually is.

Now, we will go to the hive, and I will show you how to pull out any desired section. Take off the cover and give the bees just enough smoke to drive them out of the way a little. There are separators in the super, and on top little separators $\frac{1}{4} \times \frac{1}{8}$ inch, 12 inches long,

to keep the ends of the sections apart. Now, run the knife across at each end of the section, to loosen the little separator from it. I must confess that I usually use a third tool for this, the big blade of a pocket-knife. Run in the case-knife at each side to the bottom of the section, so as to loosen the section from the separators. Put your hook down between the section and separator, and give it a quarter turn, so as to let the hook on the lower end run under the section.

I have a bit of string tied on the wire, to show me when it is pushed just deep enough to turn the hook. If the hook is not in deep enough when turned, of course it will dig into the honey. A ring of bright paint might be better than the string, for it would never slip out of its place. I think you will understand the rest. Like a bureau drawer, it may pull out straight; but very likely it will need starting at each end. When you get the section out, just grasp across it with the thumb and fingers of one hand, and give it a few rapid whirls, and every bee will be thrown off.

Now, that looks like a good deal of fuss to read it, but it does not take as much time as you probably imagine. I think I can take out a single section, or several sections, from a T super in less time—a great deal less time—than out of a wide frame. You see, there is no frame to take out—nothing but the section. In fact, if you loosen the super you will find it much harder to pull the section. Sometimes I have taken out the sections without the hook, merely loosening them with the knife and then pulling them with the fingers; but every now and then the bottom-bar of a section would pull off, and I was glad to go back to the hook.

The objection made by the editor, in the foot-note, is a valid one, that sections left on the hive for a long time will have a soiled, travel-stained, yellow appearance. But they should never be left on after the harvest is over; and in a poor season, when nothing is put in them, I think they come off about as bright as if they had been in a wide frame. You know, the bees do not go into the glue business (at least they do not here) until the white honey season is over. Indeed, if you take into consideration the whole surface of a section, or, in other words, its total appearance as viewed by a purchaser, the section out of a T super is the cleaner. In the wide frame, a heavy streak of propolis is crowded in just as far as the bees can push it all around the section. This they have no

temptation to do in the T super, for there is no crack.

You say, friend Root, that an enameled cloth can be laid flat on the section tops in wide frames and section holders. I do not see what good it would do in wide frames, for it would cover only the top-bars, and I am sure it could be put on a T super just as well as on section-holders. But do you not know that it would make matters a good deal worse in either case? If you want to see the tops of sections thoroughly daubed with glue, just lay an enameled cloth flat on the sections, toward the end of the harvest. The bees are busy trying to fill up cracks; and as fast as they push in propolis under the cloth, the cloth is raised up, making more space to fill; and if glue is to be found at all, you will find it there in plenty.—*Gleanings*.

Marengo, Ills.

Premiums at the Nebraska State Fair.

E. WHITCOMB, SUPT.

RULE 19.—When there is but one exhibitor competing for a premium, the committee may award no premium, or second or first, as merit may warrant. But in no case shall the money award exceed half that stipulated in case of competition. In non-competitive awards, committee must state in writing to the Board, in detail, the reasons for awards. All non-competitive awards are subject to revision and change by the Board of Managers, or the State Board, when in session; *provided*, the Board of Managers, or the State Board, shall have power, in extraordinary cases, with evidence justifying, to award a full cash premium.

POINTS FOR THE JUDGMENT OF HONEY.
—**COMB HONEY:** 1st. Perfection of capping. 2d. Evenness of surface. 3d. Whiteness of capping. 4th. General appearance as to marketableness.

EXTRACTED HONEY: 1st. Cleanliness. 2d. Clearness. 3d. Flavor.

Best comb basswood or white clover honey, not less than 20 pounds, crated, and in single comb sections, weighing not more than 2 pounds each—\$10, \$5.

Best comb Fall honey, not less than 20 pounds, crated, and in single comb sections, weighing not more than 2 pounds each—\$10, \$5.

Best gallon extracted white clover or basswood honey—\$5, \$3.

Best gallon extracted Fall honey—\$5, \$3.

The above is limited to competitors producing their own honey in Nebraska during the year 1891.

Best 20 pounds granulated honey—\$5, \$3.

Best and largest display of any one, including bees, extracted and comb-honey and apiarian supplies—\$15, \$10.

Best exhibit of brood-chamber and surplus comb-foundation, full to partly drawn—\$10, \$5.

Best exhibit of apiarian supplies and implements—\$15, \$10.

Best display of honey in marketable shape—\$10, \$5.

Best display of honey candy, honey sugar and sweets by any one, in which honey is made to fill the place of sugar—\$5, \$3.

Best honey vinegar, not less than one-half gallon—\$3, \$2.

Best display of bees and queens in observatory hives, and not allowed to fly—\$10, \$5.

Best exhibition of extracted-honey, to be exhibited on the grounds under the direction of the Superintendent, not later than Thursday of the fair—\$10, \$5.

Best honey extractor, test to be made by actual extracting upon the grounds—\$5, \$3.

Best all-purpose single-walled hive—\$2, \$1.

Best all-purpose chaff hive—\$2, \$1.

Best bee smoker—\$1, 50 cents.

The following is confined to exhibitors in Nebraska alone:

Best display of apiarian implements and supplies, including comb-foundation, same full to partly drawn, and queens and bees in cages—\$10, \$5.

Best report of surplus honey stored by any colony of bees during the year 1891, the amount of stores, manner of building up, handling, kind of hive used, and kind and quality stored, to be verified by owner, entries to conform with other entries of this class, and report, with verification, to be filled with Superintendent not later than noon on Thursday of the fair—\$15, \$10, \$5.

DISCRETIONARY.—This lot is intended for any and all articles which may have been omitted in any of the foregoing lots in this class, and might properly have been included therein.

Friend, Nebr.

Management of Out-Apiaries.

MRS. L. C. AXTELL.

I do not think it advisable to start an out-apiary unless the apiarist has strength and time to have personal supervision over it, as it seems so difficult to hire permanent help willing and competent to care for bees. As soon as they get a liking for the business they want to go into it themselves, and we cannot blame them for that, and if they do not like it, they do not take enough interest in it to do the work right.

I would sooner leave the bees to care for themselves than to send one who knows little or nothing of bees to care for them, or what is worse, one who thinks he knows it all and really knows nothing as he ought; or thinks he knows so much that he is not willing to follow our directions.

Some people can push work, and can make it pay to run several or many hands, while others cannot. The apiarist should study his own ability in that respect. If I did not wish to keep more than 100 colonies, or about that number, I would prefer keeping them all at home, wintering back and selling off so as not to have more than the 100 colonies at the beginning of the honey harvest each year.

We have never seen a year since we began keeping bees, 20 years ago, but that we got more honey per colony than any of our box-hive neighbors who kept from one to 10 colonies, while we had from 100 to 300 colonies in apiaries, so that in good years there must be an immense amount of honey secreted. But in quite poor years I do not think they do get quite so much per colony as if there were less in our apiary, though of that I am not quite certain.

We prefer to have our bees at our out-apiary in chaff-packed hives, protected by a high board fence on three sides, and leave them at the out-apiary all Winter, rather than to bring them home, for several reasons. We think it less work; it relieves us of the danger of moving bees, and we have as many at home as we care to put into our cellar.

Our bees away from home make us much more work per colony than those at home; one can hardly realize how much more until they try it.

Our out-apiary is $4\frac{1}{4}$ miles away from home, making 51 miles per week travel back and forth. Counting the time it takes to gather up the things ready to

go, getting up the team and carriage, putting team and things away when we get home, etc., it consumes the greater part of two days a week more than if the work and time had been expended upon our home apiary. Taking one year with another, we get just as much honey from one apiary as the other. One is near the timber, and the home apiary is on well-cultivated prairie land.

—*Farmers' Review.*

Iowa State Bee-Keepers' Society.

EUGENE SECOR, PREST.

This society will meet in annual convention in its tent on the Fair Ground, at Des Moines, Tuesday and Wednesday, Sept. 1 and 2, 1891. I would like to see every bee-keeper in Iowa who takes pride in his State make arrangements to attend that meeting. Get ready to take something to the fair also.

I am assured by the managers of the Agricultural Society that the bee-keepers shall have more room for exhibits. They are beginning to realize that Iowa can make too fine a bee and honey show to longer be sandwiched between the pumpkins and cabbages. They offer to put up a separate room for us if we will fill it. Let us show them that we appreciate their efforts to give us additional room, by the extent and magnificence of the display.

We expect to have the best State convention ever held in Iowa. We want to get acquainted with everyone interested in bee-keeping. At that meeting, besides an interesting programme, which will be published later, there will be other important questions pertaining to the pursuit, to talk about. The grandest World's Fair ever held on this continent, will open in 1893. It is none too early to begin talking it over if we wish our State to stand in the front rank. Other societies are moving. Shall the State Bee-Keepers' Society go with them?

We have decided to hold this meeting in connection with the fair because the railroads always give half rates, and we have an opportunity to see one of the best agricultural exhibitions in the West. The world does not know what Iowa is capable of doing in the way of honey production, because we have made no organized effort to enlighten them.

The first thing to do is to build up a strong State society, that can get recog-

nition at the hands of "the powers that be," if occasion arises when we need it.

Let us take an interest in the development of that industry which adds to the Nation's wealth while it impoverishes no one; which fascinates every intelligent person who pursues it; which furnishes a pure, natural, healthful sweet, acceptable alike to rich and poor, and which, as a rural pursuit, is adapted to old and young, ladies and gentlemen. It cultivates observation and study, and gives added interest to the farm.

Forest City, Iowa.

That Foul-Brood Bill.

W. P. FAYLOR.

Two bills were contemplated on the subject of "foul-brood" in the Illinois Legislature. The first one was withdrawn, or never presented at all. The one finally introduced in the House is familiar to all.

On page 474 of the BEE JOURNAL, the following is given: "Representative Smith will soon introduce a bill into the Legislature providing for an Inspector of foul-brood, and for payment of his salary by a tax of 2 cents on each colony of bees in the State."

The bill as finally presented increases the tax from 2 cents to 5 cents a colony, irrespective of value or race of bees. To my mind, it would be just as sensible to tax every horse, pig or cow, the same all over the State. Mr. A. I. Root values one of his colonies of bees in April, with best imported queen, at \$26.

Now, I ask, where would there be justice in taxing a colony of bees in a box-hive, worth \$3, the same as one worth ten times as much? Of course, it would matter but little whether the tax went direct to the Inspector, or through the Legislature to him; nor would it make any difference whether he saw my bees or not; for it would be still more of an intrusion to pay an Inspector for doing nothing.

Mr. Smith's bill says the revenue is to be applied: "For the suppression of foul-brood and the promotion of the bee-keeping industry." But who is to handle all this money? The "Illinois Bee-Keepers' Association," according to the provisions of this bill; but everybody knows that not more than one bee-keeper out of a hundred in the State belongs to that organization. Would it be right to tax 99 men to give one out of the

hundred the privilege of experimenting with the proceeds of all? Why not have an Inspector to see that bees do not starve for want of food, when it is well understood that a thousand colonies of bees die of starvation to one of foul-brood? Would this not be as reasonable?

I would be obliged if some one would tell us how many colonies of bees have perished in the State of Illinois from foul-brood during the last year. Did any one ever see a colony of bees in a box-hive infected with this so-called "dreaded disease?"

I only give some of my objections to one section of this bill. Had I a colony of bees diseased with foul-brood, I would dip the combs (hive and all, if necessary) in strong salt brine, and that would end the matter.

State Line is partly in Indiana and partly in Illinois, but the postoffice is on the Indiana side of the line. From the tone of the editor's note to my last article on this subject, I judged that he was riled; but I hope I was mistaken in this.

I, for one, am in for reducing the taxes in America instead of burdening the people with more. If the Illinois Bee-Keepers' Association wishes to impose a tax upon itself, I am willing it should do so; but to ask other people to carry forward the work of that society, I regard as being down-right cheeky.

State Line, Ind.

[To attempt by law to eradicate foul-brood in bees, as is done with pleuropneumonia in cattle, is a praise-worthy act. It entails labor on the officers of the Bee-Keepers' Association, for which they get no pay. The insinuation of Mr. Faylor is exceedingly ungenerous about "experimenting" at the expense of 99 for the benefit of 1 out of the 100!

For bees to have a contagious disease is very different to simply letting them starve—the former is a menace to the neighborhood, the latter is simply a loss to the negligent owner.

Public interest does not center in a comparison of the number of colonies having died of starvation and of foul-brood! The just complaint is that a sufficient quantity of diseased colonies have *not* died, and the law contemplates

their death to save the remainder, and stamp out the disease!

No, Brother Faylor, the editor was not "riled." He only desired to defend the Illinois association from an unreasonable and unjust attack.—Ed.]

Bees Swarming on Sundays.

MRS. L. HARRISON,

It always appears to me that bees swarm more on Sundays than on other days, but it may be only owing to the fact that we notice it more. This morning at a little past five, a neighbor called, saying, "There is big bunch of bees on a stake in the lower part of your vineyard, and they were there yesterday; I thought I would come and tell you before they left."

If it had not been for the kindness of this neighbor, we might not have seen them, and, when they again took wing, no power on earth could stop them.

There they were in a compact cluster, the outside ones overlapping each other like shingles upon a roof. A hive was brought out of the cellar, full of combs, where they had been put, to preserve them from the ravages of the bee-moth. The hive was placed near the post with a smooth board in front of it, and the bees were dipped from the cluster with a dipper and placed before it.

After passing a night upon a post, they were glad of a shelter, and marched into it "double quick." Before the early morning scouts had returned, the hive was carried to a permanent stand. Therefore, the first swarm of the season of 1891, in our apiary, issued on May 24.

This incident shows that it is well for bee-keepers who have near neighbors to be on good terms with them. Lately, in the city of Canton, Ills., a bee-keeper has been arrested and fined one dollar and cost of prosecution, and ordered to remove his bees. The case has been appealed to the Circuit Court.

This apiarist is an active prohibitionist, and the opposition concluded that if they could not sell their liquors he should not keep bees. O, join the Union, the Union, all ye bee-keepers! and then if your neighbors have any spite against you, you can call to your assistance an army, good and strong, well equipped with ammunition, in the way of prior suits, decisions of the Supreme Court, etc., and a band of bee-keeping lawyers.—*Prairie Farmer*.

Wavelets of News.

Larval Food.

I am glad to hear Mr. Cowan's book praised. It is excellent. He gives the history of most of our discoveries, and withholds no credit. He does not say that the upper head glands secrete the larval food, but, as I showed by actual experiment a year ago, the larval food is really chyle, or a product of true digestion in the true stomach. I fed bees syrup with pulverized charcoal in it, and found the latter in the royal jelly. This could not occur if royal jelly were a secretion.—A. J. COOK, in *Gleanings*.

Honey as a Tape-Worm Remedy.

The most successful pumpkin-seed remedy is made as follows:

| | |
|---------------------------|-----------|
| Peeled pumpkin-seeds..... | 3 ounces. |
| Honey..... | 2 " |
| Water..... | 8 " |

Make an emulsion. Take half, fasting, in the morning, remaining half an hour later. In three hours' time two ounces castor oil should be administered. Used with great success.—*Medical Brief*.

Aroma and Color of Honey.

By the color of the honey and the aroma therefrom, an experienced bee-keeper can determine the source from whence it came. Thus, it is very easy to tell buckwheat honey by its very dark look, and by its strong and pungent odor.

Honey-dew has the same dark look, but lacks the odor or aroma. In fact, there is little or no aroma about honey-dew. For this reason no bee-keeper need be deceived as to the source of such odorless honey.

Aroma is a term employed to designate those substances, the extreme minute particles of which are supposed to affect the organs of smell so as to produce peculiar odors. The particles diffused through the atmosphere and affecting the olfactory nerves—if the theory of particles of matter be correct—must indeed be extremely minute, yet not so much so, but what we easily detect the smell from a field of any honey-bearing plant or flower. These odors have generally been supposed to depend upon essential oils.—G. M. DOOLITTLE, in the *Rural Home*.

Honey Vinegar.

One pound of honey and one gallon of water are the proper proportions to make a good vinegar. That is, 29 pounds of honey will make (water enough being added to fill a regular 32 gallon barrel) one barrel of the best vinegar.

The vessels used to make it in are common alcohol barrels, which are found at drug stores. Saw out one of the barrel heads, and paint the outside to prevent the iron hoops from being destroyed by the vinegar. The barrels and vinegar are kept in the cellar, so covered with burlap as to keep the dust out and let the air in.

One year converts this water and honey into the choicest vinegar. More age will make it sharper, or more acid, but at one year old it is fine enough for any use. Sweetened water from washing honey drippings is the most common waste of the apiary, and to utilize it, is presumed to be the desirable matter in connection with honey vinegar. With the low price of honey, bee-keepers may find a reasonable outlet for some of their poor honey, such as is unfit to sell as an article of delicate luxury for table.—*Nebraska Agriculturist*.

Carefully Bred Bees.

There is a great difference between the worth of bees that have been bred up for many years by a skilled apiarist and those that are in box-hives, that have never given any surplus. I should prefer the former at a good price instead of the latter as a gift.

The Italian bees are superior to the blacks in every way, unless it is in capping the honey to show white. I sometimes think this is caused by their working on the alsike and other plants that the native bees are unable to obtain honey from on account of their inability to reach it. Probably the honey gathered from the same flowers by each race would show the same. They are never idle.

I have observed them when taking flights in mid-Winter busily engaged in house cleaning when colonies of natives close by the side of them were only enjoying themselves on the wing. Their marked superiority is more noticeable during poor seasons. Some think the progeny of cross-bred queens equal to full blood Italians. I prefer the pure Italians in every respect, as they cross-breed soon enough with neighbors' bees.—J. H. A., in *Stockman*.

CONVENTION DIRECTORY.*Time and place of meeting.*

1891.

Aug. 6.—Rock River, at Sterling, Ills.

J. M. Burtch, Sec., Morrison, Ills.

Sept. 3.—Susquehanna County, at So. Montrose, Pa.

H. M. Seeley, Sec., Harford, Pa.

[3] In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—P. H. Elwood...Starkville, N. Y.

SECRETARY—C. P. Dadant.....Hamilton, Ills.

National Bee-Keepers' Union.

PRESIDENT—James Heddon..Dowagiac, Mich.

SEC'Y AND MANAGER—T. G. Newman, Chicago.

Bee and Honey Gossip.

[2] Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Perfect Honey Season.

My bees are doing a "big business" this year. I never saw as perfect a season so far. I do not think that they have lost a week altogether this Spring. I have some honey now ready to take off the hives—two weeks earlier than usual.

F. E. BURROWS.

Delavan, Wis., June 15, 1891.

Bee-Escapes.

Remove the supers as near dark as you can. Put them on a board (the hive cover will do) connecting with the alighting-board, handling them as gently as you can, and then watch the procession. I think you will see as fine a "bee-escape" as you could wish.

Ionia, Mich.

HARMON SMITH.

West Tennessee for Bees.

In the Spring of 1890 I landed here, with 2 colonies of bees, from Indiana. They came through in good condition, and went to work vigorously. They cast 2 large swarms in May, and supplied us with 40 pounds of honey. All of them

wintered nicely, and carried in natural pollen throughout December, January and February, and on April 17 the first swarm issued. Since that time all have cast large swarms, one leaving for the woods. I prevent second swarms, and have had an abundant supply of good honey for a month past. I now have 7 colonies working in 240 sections for surplus. There is a continued source of honey here from the opening of the maple and elm until frost nips buck-wheat and stock peas. From my short experience, and from what I have learned from others, I believe West Tennessee is an excellent locality for bees and honey.

N. W. WRIGHT.

McKenzie, Tenn.

Horsemint Honey.

Bees are booming in this vicinity. Youpon and ratton gave us a good yield through April and May. I had about 100 swarms. Twelve prime swarms issued at one time and clustered together, but I separated them, and put them into three 2-story Langstroth hives. They present a grand sight in the morning, when they start for the forest. This is a fine country, and bees can gather honey here from 8 to 10 months of the year. Horsemint is beginning to yield nectar, and I anticipate a fine crop, as the hives are overflowing with workers. We are having a fine rain to-day, which was very badly needed.

WILLIE DOUGLASS.

Lexington, Tex., June 6, 1891.

Lots of Honey.

I am extracting from 40 colonies, and want to introduce new queens. I never saw bees build up so fast as mine have this Spring. Lots of honey is being gathered.

GEO. S. LONG.

Big Rock, Ills., June 17, 1891.

Bees Working on Red Clover.

Bees could not work much this Spring, on account of the dry weather, there having been no rain from April 22 until June 4. In consequence of which the white clover suffered, as it did last year. Bees were busy in the red clover last week. It was quite cold on June 4 and 5, and yesterday and to-day we were compelled to build fires. There have been no swarms in this locality to my knowledge.

J. NYDEGGER.

Farmer City, Ills., June 7, 1891.

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We send both the Home Journal and Bee Journal for one year, for \$1.35.

Very Well Pleased.—The Sewing Machine and Scales are received in good order, and I am well pleased with them. They do good work. The sewing machine is ornamental as well as useful. The scales are very handy for family use.—G. RUFF, Burlington, Iowa.

Bee-Keeping for Profit, by Dr. G. L. Tinker, is a new 50-page pamphlet, which details fully the author's new system of bee-management in producing comb and extracted honey, and the construction of the hive best adapted to it—his "Nonpareil." The book can be had at this office for 25c.

Calvert's No. 1 Phenol, mentioned in Cheshire's Pamphlet on pages 16 and 17, as a cure for foul-brood, can be procured at this office at 25 cents per ounce, by express.

HONEY AND BEESWAX MARKET.

NEW YORK, June 19.—New crop of Southern honey is now arriving freely. We quote: Extracted, 75@80c; orange blossom, 7@7½c; California, 7@7½c. Beeswax scarce at 28@30c.

HILDRETH BROS. & SEGELKEN,
28-30 West Broadway.

KANSAS CITY, June 20.—Very little choice white 1-lb. comb-honey on the market. Comb, 1-lb., 14@15c; 2-lb., 10@12c. Extracted, 6@6½c. Beeswax, 25c.

CLEMONS, MASON & CO.,
Cor. 4th and Walnut Sts.

CINCINNATI, June 20.—Trade good in extracted-honey, with plenty of the new crop in market. New comb-honey is plentiful. We quote: Choice comb, 12@14c. Extracted, 6@8c. Beeswax is in good supply and fair demand at 25@28c for good to choice yellow.

C. F. MUTH & SON,
Corner Freeman & Central Aves.

CHICAGO, June 20.—Demand for comb and extracted honey not very active. We quote: Comb, 12@17c; extracted, 7@8c. Beeswax, 30c.

S. T. FISH & CO., 189 S. Water St.

KANSAS CITY, June 20.—The demand for honey is very light; supply fair, at 12@14c; extracted, 5@7c. The demand for beeswax is good, at 25@27c; supply light.

HAMBLIN & BEARSS, 514 Walnut St.

CHICAGO, June 20.—Not any desirable comb-honey in market. A good article would sell readily at 17c. Extracted is steady at 7@8c for best quality. Beeswax, 28c.

R. A. BURNETT, 161 S. Water St.

BOSTON, June 19.—No change in prices of honey; sales a little slow, on account of extremely low price of maple sugar. White, 1-lb. comb, 18@19c; fair to good, 14@18c; 2-lb. sections, 16@17c. Extracted, selling at 7½@8½c. No beeswax on hand.

BLAKE & RIPLEY, 57 Chatham St.

ALBANY, N. Y., June 19.—Honey market is slow, with little call for comb-honey, as the weather is hot. Extracted, quiet and steady, at 5@8c. Beeswax, in demand at 28c.

H. R. WRIGHT, 326-328 Broadway.

NEW YORK, June 19.—No comb-honey in the market. Extracted—demand light, except for Southern, which would sell easily at 75@80c per gallon for common, and 7¼@8c for Florida. Beeswax scarce and firm at 29c.

F. G. STROHMEYER & CO., 122 Water St.

MILWAUKEE, June 20.—Supply of choice comb-honey is very small, and shipments will find a good market. We quote: Choice, 1-lb. sections, 18@20c; common, 10@16c. Extracted, white, in barrels and kegs, 7½@8½c; in tin, 8¼@9c. Dark or amber, 6@7c. Beeswax, 26@30c. **A. V. BISHOP, 142 W. Water St.**

SAN FRANCISCO, June 17.—Market almost bare of honey. We quote: Extracted, 5¼@6¼c. Comb-honey, not enough in market to be quotable. Beeswax scarce; demand fair, at 26@27c.

SCHACHT, LEMCKE & STEINER,
16-18 Drum St.

CHICAGO, June 20.—No choice comb-honey in market. Fancy stock would bring a good price. Beeswax scarce, at 29@30c.

J. A. LAMON, 44-46 S. Water St.

DETROIT, June 20.—No comb-honey in the market. Extracted, 8@9c. Beeswax firm, at 29@30c. **M. H. HUNT, Bell Branch, Mich.**

Advertisements.**CARNIOLAN!**

THE finest bee in the land. All Queens reared from first grade imported mothers, and are warranted purely mated: 75 cents each; six for \$4.00. Tested, \$1.50 each; six for \$7.50. Descriptive circular free. Address

A. L. LINDLEY,

26A1t JORDAN, INDIANA.

WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.

SECTIONS We have about 20,000 No. 1, 1-pound Sections, which we will close out at \$3.00 per thousand. Other Supplies cheap. Address

J. W. Buchanan & Bro., Eldora, Iowa.

26A2t WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.

Bee-Keepers' Supplies.

Send for illustrated price-list, free. My pamphlet, "How I Produce Comb Honey," by mail, 5 cents. **GEO. E. HILTON, Fremont, Mich.**

26A4t WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.

Lots of Replies.

During the year 1888, we had an advertisement running in the American Bee Journal, and we had the same in several Daily and Weekly papers, but to our surprise we received more than double the number of responses from the advertisement in the American Bee Journal, than from all our others combined.

The fact that we are still receiving letters referring to our advertisement in the Bee Journal, shows that it is preserved and read long after it is received. Newspapers are read and thrown aside and that ends it, but the Bee Journal is preserved, and the advertisements are often noticed and bring responses long after they appeared in it.

We regard the American Bee Journal as a first-class advertising medium.

Cedar Rapids High-Speed Engine Co.,
HENRY RICKEL, President.

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line**, for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

WANTED—To sell my apiary of 100 colonies of Italian bees, with fixtures, honey-crop, supplies and everything; in a never-failing locality; at a bargain if bought soon. Address **LOUIS WERNER, Edwardsville, Ills.**

25A2t

Advertisements.

PETRIE IMPROVED AUTOMATIC SWARM - HIVER. Thoroughly tested and guaranteed to hive every swarm that passes through it. Sample mailed for 50c. **N. C. PETRIE, Cherry Valley, O.**
25A5t

Mention the American Bee Journal.

\$2.75 per 1,000 for No. 1, one-piece Sections; No. 2, \$1.50. Two-story dovetailed Hives, complete, \$1.40 each. Plain Hives, in flat, 55 cents, as far as the lot will go. 25A3t **WM. HAASE, Bear Creek, Wis.**

Mention the American Bee Journal.

TEXAS ITALIAN QUEENS, from Imported mother. Untested, \$1; Tested, \$1.50; Selected Tested, \$2.50. Safe arrival guaranteed. Money orders payable in Richmond, Tex. **B. F. STUART, Foster, Tex.**
21A8t

Mention the American Bee Journal.

J. F. WOOD is now ready to ship those **WARRANTED QUEENS**, the same as gave such good satisfaction last season. See last week's **BEE JOURNAL** for price. Send for circular, telling how to be successful in introducing. 24Etf **J. F. WOOD, North Prescott, Mass.**

Mention the American Bee Journal.

SECTION PRESS.



WE are now prepared to furnish Wakeman & Crocker's **PRESS** for putting together **One-Piece Sections**—at wholesale and retail. Price, \$2.00, by express. By the dozen—rate given upon application.

THOMAS G. NEWMAN & SON,
246 East Madison Street, - CHICAGO, ILL.

READ

What A. I. Root says about my Five-Banded Golden Italian Bees:

"They are ABOUT THE YELLOWEST WE EVER SAW. For any who want fancy bees, these will be the bees." One Queen by mail, \$1.00.

J. F. MICHAEL, German, Darke Co., O.
23A4t

Advanced Bee-Culture;

It is to take the place of my other book, **The Production of Comb-Honey**, which will not be republished. Although the new book will contain at least five or six times as much matter as **The Production of Comb-Honey**, yet the price will be only **50 cents**. The book is already partly printed, and will probably be out sometime in April or May. If any of the friends would like to "help me along" in meeting the expenses of getting out the book, they can do so by sending their orders in advance. Such orders will be most thankfully received, and filled the **very day** the book is out. I will send **The Review** one year and the book for \$1.25. **The Review** will be sent on receipt of order (I have plenty of back numbers to send it from the beginning of the year) and the book as soon as it is out. Stamps taken, either United States or Canadian.

16Etf **SAMPLE OF THE REVIEW, FREE.**

WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.

Positively by Return Mail

AFTER June 20, we shall be prepared to ship our fine Golden Carniolan and Golden Italian Queens by return mail. Prices of Italian Queens:

| Warranted. | Tested. | Select Tested. |
|------------------|------------------|------------------|
| 1 Queen..\$1.25 | 1 Queen..\$2.00 | 1 Queen..\$3.00 |
| 2 Queens.. 2.25 | 2 Queens.. 3.75 | 2 Queens.. 5.50 |
| 6 Queens.. 6.50 | 6 Queens..10.00 | 6 Queens..15.00 |
| 12 Queens..12.00 | 12 Queens..18.00 | 12 Queens..25.00 |

Golden Carniolan Queens, each, \$2.00.
If you would rather see these Queens before paying for them, you can do so. Safe arrival and satisfaction promised in all cases.

HENRY ALLEY, Wenham, Mass.

25Att
Mention the American Bee Journal.

Scientific Queen-Rearing

AS PRACTICALLY APPLIED;

Being a Method by which the **very best of Queen-Bees** are reared in perfect accord with Nature's Way; by

G. M. DOOLITTLE.

In this book the author details the results of his Experiments in Rearing Queen-Bees for the past four or five years, and is the first to present his discoveries to the World.

Bound in Cloth—176 pages—Price, \$1.00, postpaid; or, it will be Clubbed with the **American Bee Journal** one year, for \$1.75—with the **Illustrated Home Journal**, for \$1.25; or the two Journals and the Book for \$2.00.

THOMAS G. NEWMAN & SON,
246 East Madison Street, - CHICAGO, ILL.

For Albino and Golden Italian Queens,

SEND TO

A. L. KILDOW, SHEFFIELD, ILL.

| | |
|--|--------|
| 1 Untested Albino, \$1.00; 6 for..... | \$5.00 |
| 1 Tested Albino, June and July, \$1.75; | |
| August and September..... | 1.50 |
| 1 Select Tested Albino, Aug. and Sept.... | 2.50 |
| 1 Untested Italian, \$1.00; July to Sept.... | .75 |
| 1 Tested Italian, June and July, \$1.50; | |
| August and September..... | 1.25 |
| 1 Select Tested Italian, June, \$2.50; after | |
| June..... | 2.00 |
| Send for Catalogue..... | 14Etf |

Mention the American Bee Journal.

Send 50 Cents For my Book, entitled—"A Year Among the Bees," 114 pages, cloth bound. Address

DR. C. C. MILLER,
20Att **MARENGO, ILL.**

Mention the American Bee Journal.

ITS METHODS AND MANAGEMENT.

I am now engaged in writing and printing a book that is to bear this title.

The Production of Comb-Honey, which will not be republished. Although the new book will contain at least five or six times as much matter as **The Production of Comb-Honey**, yet the price will be only **50 cents**. The book is already partly printed, and will probably be out sometime in April or May. If any of the friends would like to "help me along" in meeting the expenses of getting out the book, they can do so by sending their orders in advance. Such orders will be most thankfully received, and filled the **very day** the book is out. I will send **The Review** one year and the book for \$1.25. **The Review** will be sent on receipt of order (I have plenty of back numbers to send it from the beginning of the year) and the book as soon as it is out. Stamps taken, either United States or Canadian.

W. Z. HUTCHINSON, Flint, Mich.

call it (but I call it a dug-out), is on the north hill slope 7x15 feet, and 7 feet high, the ridge pole being braced by five 6-inch posts, and covered with poles, and about 3 feet of earth on them. The door is in the north side. I claim it is frost proof, and I can winter 1 or 100 colonies with safety in it. Of course, the more bees the more ventilation. I wintered 29 colonies in this cellar last Winter, without a single loss.

THOS. JOHNSON.

Coon Rapids, Iowa.

Florida Climate.

On page 658 is an article by Mrs. L. Harrison on "Florida Bee-Keeping." I know that her lady friend has never been to this region, or she could not speak so about the dampness. That lady's broom-handle would have to be 45 feet long to reach water on my place, and as we sleep on the ground floor, and do not dry our clothes every morning, I am sure we cannot live in "that locality." I have traveled from one end of the Indian River to the other, and never experienced the dampness described by Mrs. Harrison's friend. As an actual fact, the moisture or humidity is about 76 per cent, which is about the same as Los Angeles, California. Bees do well here on mangrove and scrub palmetto blossoms, and I would not like to see apiarists kept away by statements that are at variance with the facts. In the Summer the dampness is greater than in Winter or Spring, the average humidity being 78 per cent. This is not excessive, considering that we are on the seashore, and subject in Summer to constant showers.

JOHN ASPINWALL.

Eau Gallie, Fla., Dec. 9, 1891.

Honey in Better Demand.

I have 150 colonies of bees, and my crop of honey this year is about 3,000 pounds—one-third being comb-honey and two-thirds extracted-honey—which brought 8 cents for comb, and 6 cents for extracted. My comb-honey was put up in 1-pound sections. The demand was better this year than ever before, owing, perhaps, to a scarcity this year. We had a cold, rainy spell here in April and May, at the time the cactus and cat's-claw were in bloom, and there was no honey stored until July, as horse-mint did not bloom in May. As usual, the honey gathered in July was from mesquite, which blooms only in very dry weather. We had no rain from May 15

to Sept. 15, and none from the latter date until to-day. Two years ago I wrote you that I had foul-brood in my apiary, but found that it was not foul-brood, but was caused by heat and want of ventilation. I use the 10-frame simplicity hive, and the frames were so close to the bottom that there was no chance for ventilation. Raising the hives $\frac{1}{2}$ of an inch from the bottom-boards, by nailing cleats on the bottom-boards, will prevent swarming most effectually. I have been using some 8-frame hives this year, and will report next year with what success. I would like to hear from some bee-men in South-western Texas, through the BEE JOURNAL.

G. F. DAVIDSON.

Fairview, Tex., Dec. 12, 1891.

Honey as Food and Medicine.

The extensive use of sugar on fruit is not as bad as the cake mania that rages in so many kitchens. The fruit acids largely neutralize the indiscriminate and injudicious use of sugar. It is no serious thing to eat considerable saccharine food in a pure state, but not in the form of pure refined sugar.

If eaten and taken in the form of honey it at once becomes a valuable medicine and food. Instead of having it given us in this form in a mixture with bulk foods, as in the cane and beet, we have it mingled with fruit juices exuded from flowers highly charged with medicinal properties in the alchemy of nature and the apothecary of the bee-hive.

The advantages of honey as a medicine or food are too extensive to be considered at length here.

Honey taken as a food becomes a powerful medicine to the sugar-fed and half-diseased, and many must begin on small quantities and acquire an appetite for it. Foul air, improper ventilation, coal gases, together with the sudden change and exposure of lungs and throats to zero weather, or worse, in a moment, is the source of no end of throat and bronchial troubles.

A free, regular, and constant use of honey, is probably the best medicine for throat troubles there is, and its regular use would be largely corrective here. It is always best to take our medicine and food together. —*Horticultural Times*.

If You Have any honey to sell, get some Honey Almanacs and scatter in your locality. They will sell it all in a very short time.